Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.　(Canceled)

2.　(Currently Amended) The method of claim 9 1, further comprising:

receiving a second write request at the storage server for writing the second customer data to the NVS;

writing the second customer data to the second segments in the NVS; and

in response to receiving the second write request, allocating third segments in the NVS for storing third customer data.

3.　(Currently Amended) The method of claim 9 1, further comprising:

maintaining a cache control block for allocating the first and second segments in the NVS.

4.　(Currently Amended) The method of claim 9 1, further comprising:

maintaining a virtual track buffer for allocating the first and second segments in the NVS.

5.　(Currently Amended) The method of claim 9 1, wherein:

the first write request is received at a cache at the storage server from a host adapter at the storage server.

6.　(Currently Amended) The method of claim 9 1, wherein:

following commit processing of the first customer data at the NVS, the NVS prepares to use the second segments to store the second customer data for a subsequent write request.

7.　(Currently Amended) ~~The method of claim 1, further comprising:~~

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A method for storing customer data at a non-volatile storage (NVS) at a storage server, comprising:

initializing the NVS, prior to receiving a first write request at the storage server for writing first customer data to the NVS, by allocating first segments in the NVS for storing data;

in response to receiving the first write request, allocating second segments in the NVS for storing second customer data;

maintaining a virtual track buffer identifying at least the first and second segments; and

maintaining a flag identifying which of the at least first and second segments to use for storing customer data for which a write request has been made.

8.   (Original)   The method of claim 7, further comprising:

alternatingly setting the flag so that the at least first and second segments are alternatingly selected for storing the customer data for which a write request has been made.

9.   (Currently Amended) ~~The method of claim 1,~~ A method for storing customer data at a non-volatile storage (NVS) at a storage server, comprising:

initializing the NVS, prior to receiving a first write request at the storage server for writing first customer data to the NVS, by allocating first segments in the NVS for storing data;

in response to receiving the first write request, allocating second segments in the NVS for storing second customer data, wherein customer data for which a write request has been made is stored in the NVS in successive commit processes; ~~, the method further comprising:~~

maintaining in the NVS, across a power loss, information identifying which of the first and second segments is involved in a current one of the successive commit processes.

10.   (Currently Amended) An apparatus for storing customer data at a non-volatile storage (NVS) at a storage server, comprising:

means for initializing the NVS, prior to receiving a first write request at the storage server for writing first customer data to the NVS, by allocating first segments in the NVS for storing data; and

means for allocating second segments in the NVS, in response to receiving the first write request, for storing second customer data; and

means for maintaining in the NVS, across a power loss, information identifying which of the first and second segments is involved in a current one of the successive commit processes.

11.   (Original)   The apparatus of claim 10, further comprising:
means for receiving a second write request at the storage server for writing the second customer data to the NVS;
means for writing the second customer data to the second segments in the NVS; and
means for allocating, in response to receiving the second write request, third segments in the NVS for storing third customer data.

12.   (Original)   The apparatus of claim 10, further comprising:
means for maintaining a cache control block for allocating the first and second segments in the NVS.

13.   (Original)   The apparatus of claim 10, further comprising:
means for maintaining a virtual track buffer for allocating the first and second segments in the NVS.

14.   (Original)   The apparatus of claim 10, wherein:
the first write request is received at a cache at the storage server from a host adapter at the storage server.

15.   (Original)   The apparatus of claim 10, wherein:
following commit processing of the first customer data at the NVS, the NVS prepares to use the second segments to store the second customer data for a subsequent write request.

16.   (Currently Amended)   ~~The apparatus of claim 10, further comprising:~~
An apparatus for storing customer data at a non-volatile storage (NVS) at a storage server, comprising:

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means for initializing the NVS, prior to receiving a first write request at the storage server for writing first customer data to the NVS, by allocating first segments in the NVS for storing data;

means for allocating second segments in the NVS, in response to receiving the first write request, for storing second customer data;

means for maintaining a virtual track buffer identifying at least the first and second segments; and

means for maintaining a flag identifying which of the at least first and second segments to use for storing customer data for which a write request has been made.

17. (Original) The apparatus of claim 16, further comprising:

means for alternatingly setting the flag so that the at least first and second segments are alternatingly selected for storing the customer data for which a write request has been made.

18. (Currently Amended) A program storage device, tangibly embodying a program of instructions executable by a machine to perform a method for storing customer data at a non-volatile storage (NVS) at a storage server, the method comprising the steps of:

initializing the NVS, prior to receiving a first write request at the storage server for writing first customer data to the NVS, by allocating first segments in the NVS for storing data; and

in response to receiving the first write request, allocating second segments in the NVS for storing second customer data; and

maintaining in the NVS, across a power loss, information identifying which of the first and second segments is involved in a current one of the successive commit processes.

19. (Original) The program storage device of claim 18, wherein the method further comprises:

receiving a second write request at the storage server for writing the second customer data to the NVS;

writing the second customer data to the second segments in the NVS; and

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in response to receiving the second write request, allocating third segments in the NVS for storing third customer data.

20. (Original) The program storage device of claim 18, wherein the method further comprises:

maintaining a cache control block for allocating the first and second segments in the NVS.

21. (Original) The program storage device of claim 18, wherein the method further comprises:

maintaining a virtual track buffer for allocating the first and second segments in the NVS.

22. (Original) The program storage device of claim 18, wherein:

the first write request is received at a cache at the storage server from a host adapter at the storage server.

23. (Original) The program storage device of claim 18, wherein:

following commit processing of the first customer data at the NVS, the NVS prepares to use the second segments to store the second customer data for a subsequent write request.

24. (Currently Amended) ~~The program storage device of claim 18, wherein the method further comprises:~~

A program storage device, tangibly embodying a program of instructions executable by a machine to perform a method for storing customer data at a non-volatile storage (NVS) at a storage server, the method comprising the steps of:

initializing the NVS, prior to receiving a first write request at the storage server for writing first customer data to the NVS, by allocating first segments in the NVS for storing data;

in response to receiving the first write request, allocating second segments in the NVS for storing second customer data;

maintaining a virtual track buffer identifying at least the first and second segments; and

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maintaining a flag identifying which of the at least first and second segments to use for storing customer data for which a write request has been made.

25.   (Currently Amended) The program storage device of claim 24 ~~18~~, wherein the method further comprises:

alternatingly setting the flag so that the at least first and second segments are alternatingly selected for storing the customer data for which a write request has been made.

26.   (Currently Amended) ~~The method of claim 1, wherein:~~

A method for storing customer data at a non-volatile storage (NVS) at a storage server, comprising:

initializing the NVS, prior to receiving a first write request at the storage server for writing first customer data to the NVS, by allocating first segments in the NVS for storing data; and

in response to receiving the first write request, allocating second segments in the NVS for storing second customer data,

if a segment is partially written, customer data in a segment with the least amount of data is copied to a segment with the most amount of data.

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